ABSTRACT

A digital pressure controller that utilizes a microprocessor provides for control of the speed of a fluid pump engine for the purpose of maintaining specified pressures at both the inlet and outlet of the pump. Based upon pressure sensor output, and computations based on multiple calibrations between pump speed and pressure, and between output voltage and pump speed, a pump drive mechanism speed is determined by the control logic of the microprocessor, which speed maintains at least one of the inlet and outlet pressures within a specified range. The microprocessor may determine the specific weight of the fluid being pumped in order to select the pump drive mechanism speed.